

WHAT IS CLAIMED IS:

1. A liquid container, comprising:

at least four liquid storing bags, each including:

a liquid outlet member having a liquid outlet port,

5 and

a liquid storing part formed of flexible film material;

and

a liquid container case including:

a base, and

10 support parts for fixing the liquid outlet members
to expose the liquid outlet ports to an outside of the liquid
container case,

wherein the at least four liquid storing bags are disposed
to be shifted from each other with a part of the liquid storing
15 bag overlapping a part of the adjacent liquid storing bag along
the base of the liquid container case in an interior of the liquid
container case.

2. The liquid container according to claim 1, wherein:
the liquid container case includes:

20 a case body having the base, a side wall intersecting
the base and having the support parts, and an open face
opposite to the base; and

a lid member covering the open face.

3. The liquid container according to claim 1, wherein
25 a space between the adjacent liquid outlet ports is gradually

increased as it goes from ends in the arranging direction of the liquid outlet ports toward a center.

4. The liquid container according to claim 2, wherein a space between the adjacent liquid outlet ports is gradually increased as it goes from ends in the arranging direction of the liquid outlet ports toward a center.

5. The liquid container according to any one of claims 1 to 4, wherein the liquid storing bag is formed by welding four sides of two sheets of flexible films.

10 6. The liquid container according to any one of claims 1 to 4, wherein central axes of the liquid outlet ports are all disposed on the same horizontal plane.

15 7. The liquid container according to any one of claims 1 to 4, wherein the liquid storing bags are stored at a designated angle of inclination.

8. The liquid container according to claim 7, wherein the liquid container case further includes a member adapted to hold the liquid storing bags in an attitude of being inclined at a designated angle.

20 9. The liquid container according to claim 7, wherein the attitude holding member is formed integral with the liquid container case.

10. The liquid container according to any one of claims 1 to 4, further comprising:

25 at least one of a reverse insertion preventing member and

an erroneous insertion preventing member,

wherein the reverse insertion preventing member prevents the liquid container from being mounted in an attitude other than a designated attitude to a liquid ejection device for ejecting liquid in the liquid storing bags from a liquid ejection head, and

the erroneous insertion preventing member prevents the liquid container from being inserted into an improper liquid ejection device not having a designated shape.

10 11. The liquid container according to claim 10, wherein the reverse insertion preventing member and/or the erroneous insertion preventing member are disposed on the liquid container case.

15 12. The liquid container according to claim 11, wherein the reverse insertion preventing member and/or the erroneous insertion preventing member is disposed on the liquid container case between the liquid outlet port of the liquid storing bag disposed at the outermost end of the plurality of liquid storing bags and one wall surface of the liquid container case intersecting the base.

20 13. The liquid container according to any one of claims 1 to 4, further comprising:

a circuit board having a storing part storing information regarding the liquid container,

25 wherein the circuit board is disposed on the liquid container

case between the liquid outlet port of the liquid storing bag disposed at the outermost end of the plurality of liquid storing bags and one wall surface of the liquid container case intersecting the base.

5 14. The liquid container according to claim 10, further comprising:

 a circuit board having a storing part storing information regarding the liquid container,

10 wherein the reverse insertion preventing member and/or the erroneous insertion preventing member, and the circuit board are disposed on the liquid container case between the liquid outlet port of the liquid storing bag disposed at the outermost end of the plurality of liquid storing bags and one wall surface of the liquid container case intersecting the base.

15 15. The liquid container according to any one of claims 1 to 4, wherein each of the liquid storing bags is provided with an information indicating member having information regarding liquid stored therein.

20 16. A liquid ejection device, comprising an accommodation part for accommodating the liquid container as claimed in any one of claims 1 to 4.

25 17. A liquid container case, which is adapted to store a plurality of liquid storing bags, each including an outlet member having a liquid outlet port and being attached to a flexible film, the liquid container case comprising:

a plurality of support parts for supporting the outlet members to store the liquid storing bags with a part of the liquid storing bag overlapping a part of the adjacent liquid storing bag.

5 18. A liquid container comprising:

first and second liquid storing bags, each including:

flexible liquid storing part having an upper surface and a lower surface, and

10 a liquid outlet member being attached to the liquid storing part and having a liquid outlet port in fluid communication with an interior of the liquid storing part;

a liquid container case including:

a base defining a bottom surface, and

15 a first side wall intersecting the base, and receiving the liquid outlet members of the first and second liquid storing bags,

a first slope member defining a first slope surface inclined relative to the bottom surface, wherein:

20 the lower surface of the liquid storing part of the first liquid storing bag partly contacts the slope surface and the bottom surface; and

the lower surface of the liquid storing part of the second liquid storing bag partly contacts the upper surface of the liquid storing part of the first liquid storing bag and the bottom surface.

25 19. The liquid container according to claim 18, further

comprising:

third and fourth liquid storing bags, each including:

flexible liquid storing part having an upper surface and a lower surface, and

5 a liquid outlet member being attached to the liquid storing part, having a liquid outlet port in fluid communication with an interior of the liquid storing part, and being received by the side wall, wherein:

10 the lower surface of the liquid storing part of the third liquid storing bag partly contacts the upper surface of the liquid storing part of the second liquid storing bag and the bottom surface; and

15 the lower surface of the liquid storing part of the fourth liquid storing bag partly contacts the upper surface of the liquid storing part of the third liquid storing bag and the bottom surface.

20 20. The liquid container according to claim 19, wherein:
an axis-to-axis distance between the liquid outlet ports of the first and second liquid storing bags is smaller than an axis-to-axis distance between the liquid outlet ports of the second and third liquid storing bags.

25 21. The liquid container according to claim 20, wherein:
the axis-to-axis distance between the liquid outlet ports of the second and third liquid storing bags is smaller than an axis-to-axis distance between the liquid outlet ports of the third and fourth liquid storing bags.

22. The liquid container according to claim 18, wherein the first and second liquid storing bags has the same shape and the same liquid storing capacity.

23. The liquid container according to claim 19, wherein
5 the first, second, third and fourth liquid storing bags has the same shape and the same liquid storing capacity.

24. The liquid container according to claim 19, wherein a quantity of liquid filled in one of the first, second, third and fourth liquid storing bags is different from a quantity of
10 liquid filled in another of the first, second, third and fourth liquid storing bags.

25. The liquid container according to claim 18, wherein the slope member is an integral member formed on the base of the liquid container case.

15 ²⁶~~27~~ The liquid container according to claim 25, wherein the slope member includes a plurality of ribs, each integral with the base of the liquid container.

²⁷~~28~~ The liquid container according to claim 18, further comprising:

20 a groove extending from the first side wall in a direction perpendicular to the first side wall, and being located in a region between the slope surface and a second side wall that intersects the base and the first side wall and that extends in the direction perpendicular to the first side wall.

25 ²⁸~~29~~ The liquid container according to claim 18, wherein

Rule 1.126

each of the liquid storing parts of the first and second liquid storing bags is formed by flexible films, four sides of which are heat-welded.

²⁹
~~30~~. The liquid container according to claim 19, wherein
5 axes of the liquid outlet ports of the first, second, third and fourth liquid storing bags are arranged on a line extending parallel to the base of the liquid container case.

³⁰
~~31~~. The liquid container according to claim 30, wherein
10 each of the liquid storing bags defines an imaginary plane that connects a lateral side at which the upper surface meets the lower surface to an opposite lateral side at which the upper surface meets the lower surface and that also contains an axis of the liquid outlet port, and the imaginary plane of each of the liquid storing bags is inclined about 15 degrees relative
15 to the line on which the axes of the liquid outlet ports are arranged.

³¹
~~32~~. The liquid container according to claim 18, further comprising:

a second slope member defining a second slope surface
20 substantially parallel to the first slope surface, the second slope member is located at a laterally opposite position with respect to the first slope member.

³²
~~33~~. The liquid container according to claim 32, wherein
the liquid container case further includes a lid member having
25 the second slope member and being located opposite from the base.

³³
34. The liquid container according to claim 28, wherein a plurality of projections are disposed in the groove.

³⁴
35. The liquid container according to claim 28, wherein a circuit board having a memory and an electric contact is disposed
5 in the groove.

³⁵
36. The liquid container according to claim 19, wherein a label is attached to the upper surface of the first liquid storing bag at a location where the label does not contact the lower surface of the second liquid storing bag.

10